इंटरनेट मानक

Disclosure to Promote the Right To Information

Whereas the Parliament of India has set out to provide a practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, and whereas the attached publication of the Bureau of Indian Standards is of particular interest to the public, particularly disadvantaged communities and those engaged in the pursuit of education and knowledge, the attached public safety standard is made available to promote the timely dissemination of this information in an accurate manner to the public.

“जानने का अधिकार, जीने का अधिकार”
Mazdoor Kisan Shakti Sangathan
“The Right to Information, The Right to Live”

“पुराने को छोड नये के तरफ”
Jawaharlal Nehru
“Step Out From the Old to the New”

IS 11075-1 (1984): Radio Frequency Connectors of BNC, TNC and UHF Series, Part 1: Test Schedule and Requirements [LITD 3: Electromechanical COmponents and Mechnical Structures for Electronic Equipment]

“ज्ञान से एक नये भारत का निर्माण”
Satyanarayan Gangaram Pitroda
“Invent a New India Using Knowledge”

Act Number 22 of 2005
The Indian Parliament
RIGHT TO INFORMATION

Made Available By
Public.Resource.Org

“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”
Bhartṛhari—Nītiśatakam
“Knowledge is such a treasure which cannot be stolen”

BLANK PAGE

BRUTUM FULMEN

IGNORANTIA JURIS NON EXCUSAT

PROTECTED BY COPYRIGHT

(Reaffirmed 2004)

Indian Standard

SPECIFICATION FOR RADIO FREQUENCY CONNECTORS OF BNC, TNC AND UHF SERIES

PART 1 TEST SCHEDULE AND REQUIREMENTS

UDC 621·315·683 : 621·391·31·029·5

© *Copyright* 1985

INDIAN STANDARDS INSTITUTION
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

Gr 6

January 1985

Indian Standard

SPECIFICATION FOR RADIO FREQUENCY CONNECTORS OF BNC, TNC AND UHF SERIES

PART 1 TEST SCHEDULE AND REQUIREMENTS

Connectors for Electronic Equipment Sectional Committee, LTDC 16

Chairman	*Representing*
Maj-Gen N. Dayal	Ministry of Defence (DGI)
Members	
Lt-Col S. R. Sen (*Alternate* to Maj-Gen N. Dayal)	
Shri S. C. Duggal	Directorate General of Civil Aviation, New Delhi
Shri K. C. Devgan (*Alternate*)	
Shri M. R. Gogia	M/s M. C. Gogia, Thane
Shri Bakul Harishanker	Allied Electronics Corporation, Bombay
Shri Pradeep Bakul (*Alternate*)	
Joint Director	Railway Board (Ministry of Railways)
Joint Director (*Alternate*)	
Shri G. Lingamurthy	Hindustan Aeronautics Ltd, Hyderabad
Shri K. Suryaprasad (*Alternate*)	
Shri K. A. Mathew	Electronic Components Industries Association (ELCINA), New Delhi
Lt-Col Paul Varghese (*Alternate*)	
Shri I. C. Mathur	Directorate of Technical Development & Production (Air), Ministry of Defence, New Delhi
Shri B. A. Shastry (*Alternate*)	
Dr K. M. Mathur	Hindustan Electrotechnology Pvt Ltd, Bangalore
Shri C. R. Ranganatha (*Alternate*)	
Shri Ram Swarup	National Physical Laboratory (CSIR), New Delhi
Shri O. N. Khanna (*Alternate*)	
Shri P. V. Rao	Indian Telephone Industries, Bangalore
Shri Lakshminarayana (*Alternate*)	
Shri P. N. Reddy	Hyderabad Connectronics Ltd, Palaucheru, Medak (AP)
Shri S. V. Kabade (*Alternate*)	
Shri C. S. Sethi	Gilard Electronics Pvt Ltd, Kota
Shri K. S. Sethi (*Alternate*)	

(*Continued on page* 2)

© *Copyright* 1985
INDIAN STANDARDS INSTITUTION
This publication is protected under the *Indian Copyright Act* (XIV of 1957) and reproduction in whole or in part by any means except with written permission of the publisher shall be deemed to be an infringement of copyright under the said Act.

(*Continued from page* 1)

Members	*Representing*
Shri R. N. Sharma	Posts & Telegraphs, New Delhi
Shri Somnath Maity (*Alternate*)	
Shri P. K. Shukla	Ministry of Defence (R & D)
Shri K. Nageshappa (*Alternate*)	
Shri R. Somasekhara	Bharat Electronics Ltd, Bangalore
Shrimati Brinda Srinivasan (*Alternate*)	
Shri M. P. George Varghese	O/E/N Connectronics Ltd, Cochin (Kerala)
Shri M. Sukumaran (*Alternate*)	
Lt-Col Paul Varghese	Amphetronix Ltd, Pune
Shri T. K. Venugopal (*Alternate*)	
Shri N. Srinivasan, Director (LTD)	Director General, ISI (*Ex-officio Membe*)

Secretary

Shri B. K. Sharma
Deputy Director (LTD), ISI

Indian Standard

SPECIFICATION FOR RADIO FREQUENCY CONNECTORS OF BNC, TNC AND UHF SERIES

PART 1 TEST SCHEDULE AND REQUIREMENTS

0. FOREWORD

0.1 This Indian Standard (Part 1) was adopted by the Indian Standards Institution on 31 July 1984, after the draft finalized by the Connectors for Electronic Equipment Sectional Committee had been approved by the Electronics and Telecommunication Division Council.

0.2 This standard (Part 1) shall be used in conjunction with IS : 5054-1980*.

0.3 This standard (Part 1) is one of the series of standards on radio frequency connectors for frequencies above 3 MHz used in electronic equipment. This is the sectional specification covering BNC, TNC and UHF series of connectors. Subsequent parts of this standard would cover detail specifications for specific types of connectors.

0.4 While preparing this standard, assistance has been derived from JSS 52401 ' Detail specification for connectors, radio frequency, series BNC, TNC and UHF ' issued by the Directorate of Standardization, Ministry of Defence, India.

0.5 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value observed or calculated, expressing the result of the test shall be rounded off in accordance with IS : 2-1960†. A number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard specifies the test schedule and requirements applicable for radio frequency connectors of BNC, TNC and UHF series.

---

*Specification for general requirements and methods of test for radio frequency connectors above 3 MHz (*first revision*).

†Rules for rounding off numerical values (*revised*).

2. TERMINOLOGY

2.0 For the purpose of this standard, the terms and definitions given in IS : 1885 (Part 40) 1974* and IS : 5054-1980† shall apply.

3. MATERIALS, CONSTRUCTION AND WORKMANSHIP

3.1 The construction and workmanship shall be in accordance with **4** of IS : 5054-1980†. The materials and finishes shall be in accordance with the relevant specification.

4. TYPE DESIGNATION

4.1 Radio frequency connectors according to this standard are designated by:

a) reference number to the Indian Standard,

b) The letter IS represents Indian Standard,

c) A two digit numerical block numbers to identify various families of connectors.

For example — BNC family in the block No. 01 to 30,
UHF family in the block No. 31 to 60,
TNC family in the block No. 61 to 90, and
block No. 91 to 99 reserved as spares.

d) A two digit numerical block numbers varying between 01 to 99 for each type of connector in any family of connectors described above, to represent variants like materials, finishes, cables, cable terminating technique, applications, etc. This block is further subdivided into two blocks, one block between number 01 to 49 to identify connectors for professional applications and the other block of numbers between 50 to 99 to identify connectors for consumer applications.

4.2 The type designation shall be in accordance with **4.1**, for example, XXXX IS : 01-51.

where

XXXX represents the reference number of Indian Standard,
IS denotes Indian Standard,
01 represents straight BNC cable plug, and
51 represents that the plug is for consumer applications, having 50 Ω impedance and for use with WRA 12 coaxial cables.

---

*Electrotechnical vocabulary: Part 40 Connectors.

†Specification for general requirements and methods of tests for radio frequency connectors above 3 MHz (*first revision*).

4.3 The type designation of a particular radio frequency connector shall be specified in the relevant specification.

5. MARKING

5.1 Each radio frequency connector shall have the following details marked clearly and indelibly on it in accordance with **6.0** of IS : 5054-1980*.

a) IS type designation according to **4.1**,
b) Manufacturer's name or trade-mark and type number, and
c) Year of manufacture (OPTIONAL).

6. CLIMATIC CATEGORY

6.1 The climatic category shall generally be according to **3** of IS : 5054-1980*.

6.2 The climatic severities of a particular connector shall be specified in the relevant specification.

7. ELECTRICAL CHARACTERISTICS

7.1 The electrical characteristics of every connector shall be as specified in the relevant specification.

8. TESTS

8.1 General — The test schedule specifies the tests and the order in which they shall be carried out as well as the requirements to be met.

8.2 Conditions of Tests — The provisions of **8** of IS : 5054-1980* shall apply.

8.3 Classification of Tests — The provisions of **7** of IS : 5054-1980* shall apply.

8.4 Test Schedule

8.4.1 *Type Tests* — The test schedule for type tests and the sequence of tests shall be as specified in Table 1. The manufacturers shall submit 22 mating pairs of each style for which approval is desired. If approval is desired for all types covered in any particular category, the manufacturer shall submit 5 mating pairs in each of the remaining types of the particular category. The additional samples shall be subjected to Group '0' and Group '5' tests only.

---

*Specification for general requirements and methods of tests for radio frequency connectors above 3 MHz (*first revision*).

TABLE 1 SCHEDULE OF TYPE TESTS

(*Clause* 8.4.1)

SL No.	TESTS	CLAUSE REFERENCE OF IS : 5054-1980*	CONDITION OF TEST	REQUIREMENTS
(1)	(2)	(3)	(4)	(5)
1.	*Zero Group (22 pairs)*			
	a) Visual examination	9.1	—	—
	b) Dimensions (outline)	9.2	According to outline dimensions indicated	—
	c) Mating characteristics	10.15	The following details shall be as specified: a) Oversize pin or test ring b) Number of insertions c) Insertion force d) Withdrawal force	—
	d) Engagement and disengagement force	10.16	—	—
	i) Bayonet and threaded patterns	10.16.1	—	The torque and longitudinal force shall be specified in the relevant specification
	e) Coupling proof torque	10.17	The value of torque shall be specified in the relevant specification	—
	f) Permeability of non-magnetic materials	11.12	—	—
	g) Contact resistance	11.1	Test current 1A dc. The contact resistance shall be measured between the following points:	Unless otherwise specified the rating shall not exceed the following:
			a) Centre contacts of mated pairs	a) 2mΩ (*Max*) professional grade 5mΩ for consumer grade

*Specification for general requirements and methods of tests for radio frequency connectors above 3 MHz (*first revision*).

(*Continued*)

TABLE 1 SCHEDULE OF TYPE TESTS — *Contd*

SL No.	TESTS	CLAUSE REFERENCE OF IS : 5054-1980*	CONDITION OF TEST	REQUIREMENTS
(1)	(2)	(3)	(4)	(5)
			b) Outer contacts of mated pairs	b) 0·2 mΩ (*Max*)
			c) Braid on cable to outer contact on connector	c) 0·1 mΩ (*Max*)
	h) Voltage proof	11.5	Test voltage 1500 V ac (rms)	—
	j) Insulation resistance	11.4	At 500 V dc	The value shall be not less than 5 000 mΩ for professional grade and 1 000 mΩ for consumer grade
	k) Sealing (applicable to sealed patterns)	10.13	For hermetically sealed patterns as in **7.15** of IS : 589-1961†	The leakage rate shall not exceed 10^{-6} pa dm^3/S
			For pressurised patterns. The connector shall be subjected to the air pressure specified in detail specification applied to one end and the whole assembly immersed in water. The connector shall remain immersed for atleast 2 minutes	There shall be no leakage as detected by escaping air bubbles
2.	*First group (6 pairs)*			
	a) Dimensions		—	Interface dimensions shall be as applicable in Fig. 1 to 6

---

*Specification for general requirements and methods of tests for radio frequency connectors above 3 MHz (*first revision*).

†Basic climatic and mechanical durability tests for components for electronic and electrical equipment (*revised*).

(*Continued*)

TABLE 1 SCHEDULE OF TYPE TESTS — *Contd*

SL No.	TESTS	CLAUSE REFERENCE OF IS : 5054-1980*	CONDITION OF TEST	REQUIREMENTS
(1)	(2)	(3)	(4)	(5)
	b) Solderability (applicable for solder type termination)	10.1	—	—
	c) Robustness of termination	10.8.3	A steady force of 22·25 N shall be applied to the termination in the direction radial to the axis of the contact which is most likely to cause damage	—
	i) Visual examination	9.1	—	
	ii) Contact resistance	11.1	Measurement shall be made on centre contact only	[*See* 1 (g)]
	d) Bump (Impact)	10.4	4 000 bumps for professional grade and 1 000 bumps for consumer grade	—
	i) Visual examination	9.1	—	—
	ii) Contact resistance	11.1	Measurement shall be made on centre contact only	[*See* 1 (g)]
	e) Vibration	10.2	For professional grade 10 to 2 000 Hz. For consumer grade 10 to 500 Hz	—
	i) Visual examination	9.1	—	—
	ii) Contact resistance	11.1	Measurement shall be made on centre contact only	[*See* 1 (g)]
	f) Shock	10.5	For professional grade 500 m/s^2 for BNC and UHF series For professional grade 1 km/s^2 for TNC series. Test not applicable for consumer grade	—

*Specification for general requirements and methods of tests for radio frequency connectors above 3 MHz (*first revision*).

(*Continued*)

TABLE 1 SCHEDULE OF TYPE TESTS — *Contd*

SL No.	TESTS	CLAUSE REFERENCE OF IS : 5054-1980*	CONDITION OF TEST	REQUIREMENTS
(1)	(2)	(3)	(4)	(5)
	i) Visual examination	9.1	—	—
	ii) Contact resistance	11.1	Measurement shall be made on centre contact only	[*See* 1 (g)]
g)	Acceleration	10.3	Professional grade 170 m/s². Test not applicable for consumer grade	—
	i) Visual examination	9.1	—	—
	ii) Contact resistance	11.1	Measurement shall be made on centre contact only	[*See* 1 (g)]
h)	Rapid change of temperature	14	5 cycles of minimum and maximum temperature	—
	i) Visual examination	9.1	—	—
	ii) Voltage proof	11.5	[*See* 1 (h)]	[*See* 1 (h)]
	iii) Contact resistance	11.1	Measurement shall be made on centre contact only	[*See* 1 (g)]
j)	Climatic sequence	12	—	—
	1) Dry heat	12.2.1	At the maximum temperature severity	—
	i) Visual examination	9.1	—	—
	2) Damp heat accelerated (first cycle)	12.2.2	One cycle	—
	i) Visual examination	9.1	—	—
	3) Dry Cold	12.2.3	At the minimum temperature severity	—
	i) Visual examination	9.1	—	—
	4) Corona level	11.10	The test voltage and air pressure shall be specified in relevant specification	—

---

*Specification for general requirements and methods of tests for radio frequency connectors above 3 MHz (*first revision*).

(*Continued*)

TABLE 1 SCHEDULE OF TYPE TESTS — *Contd*

SL No.	TESTS	CLAUSE REFERENCE OF IS : 5054-1980*	CONDITION OF TEST	REQUIREMENTS
(1)	(2)	(3)	(4)	(5)
	5) Low air pressure	12.2.4	4·4 kPA for professional grade. Test not applicable to consumer grade	—
	i) Voltage proof	11.5	At 125 V ac	—
	6) Damp heat accelerated (remaining cycles)	12.2.5.2	For professional grade 5 cycle and for consumer grade 1 cycle	—
	i) Visual examination	9.1	—	—
	ii) Working test	11.13	At the rated voltage	—
	iii) Insulation resistance	11.4	[*See* 1 (j)]	The value shall be 500 mΩ (*Min*) for professional grade. 50 mΩ (*Min*) for consumer grade
	iv) Voltage proof	11.5	[*See* 1 (h)]	[*See* 1 (h)]
	v) Contact resistance	11.1	Measurement shall be made on centre contact only	The value shall be less than 5 m Ω or equal to 5 m Ω
	vi) Sealing	10.13	[*See* 1 (k)]	[*See* 1 (k)]
	vii) Engagement and disengagement force	10.16.1	[*See* 1 (d)]	[*See* 1 (d)]
	k) Flammability	21	—	Burning particles shall not detach from the RF connectors
3.	*Second Group (4 pairs)*			
	a) Damp heat (long term exposure)	13	For professional grade 56 days. For consumer grade 21 days	—
	i) Visual examination	9.1	—	—
	ii) Working test	11.13	At the rated voltage	—

---

*Specification for general requirements and methods of tests for radio frequency connectors above 3 MHz (*first revision*).

(*Continued*)

TABLE 1 SCHEDULE OF TYPE TESTS — *Contd*

SL No.	TESTS	CLAUSE REFERENCE OF IS : 5054-1980*	CONDITION OF TEST	REQUIREMENTS
(1)	(2)	(3)	(4)	(5)
	iii) Insulation resistance	11.4	[*See* 1 (j)]	The value shall be 500 mΩ (*Min*) for professional grade. 50 mΩ (*Min*) for consumer grade
	iv) Voltage proof	11.5	[*See* 1 (k)]	[*See* 1 (k)]
	v) Contact resistance	11.1	Measurement shall be made on centre contact only	The value shall be less than or equal to 5 mΩ
	vi) Sealing	10.13	[*See* 1 (k)]	[*See* 1 (k)]
	vii) Engagement and Disengagement force	10.16.1	[*See* 1 (d)]	[*See* 1 (d)]
4.	*Third Group (4 Pairs)*			
	a) Mechanical endurance test	19	The number of operations shall be 500, at the rate of 12 operations/min (*Max*)	—
	i) Visual examination	9.1	—	—
	ii) Mating characteristics	10.15	[*See* 1 (c)]	[*See* 1 (c)]
	iii) Engagement and disengagement force	10.16.1	[*See* 1 (d)]	[*See* 1 (d)]
	b) Electrical endurance	20	1000 h at upper category temperature. The contact shall be loaded at 1 A dc	—
	i) Visual examination	9.1	—	—
	ii) Contact resistance	11.1	Measurement shall be made on centre contact only	The value shall be less or equal to 5 mΩ
	iii) Voltage proof	11.5	[*See* 1 (k)]	[*See* 1 (k)]
	iv) Sealing	10.13	[*See* 1 (k)]	[*See* 1 (k)]

*Specification for general requirements and methods of tests for radio frequeney connectors above 3 MHz (*first revision*).

(*Continued*)

TABLE 1 SCHEDULE OF TYPE TESTS — *Contd*

SL No.	TESTS	CLAUSE REFERENCE OF IS : 5054-1980*	CONDITION OF TEST	REQUIREMENTS
(1)	(2)	(3)	(4)	(5)
5.	*Fourth Group (1 Pair)*			
	a) Mould growth	15	Applicable for professional grades. Test not applicable for consumer grades	—
6.	*Fifth Group (3 Pairs)*			
	a) VSWR	11.14	—	—
	b) R. F. Leakage	11.15	—	—
	c) R. F. Insertion loss	11.16	—	—
	d) Voltage proof (radio frequency)	11.17	—	—
	e) Cable retention force	10.19	—	—
	f) Coupling mechanism retention force	10.20	—	—
	g) Resistance to solvents	23	One of the solvents to be used 1. One part by volume of isopropylalcohol, 2 and 3 parts by volume of mineral spirit 2. Trychloroethane 3. Azeotrope of trichloroethane (freon) and ethylene chloride.	—
	i) Insulation resistance	11.4	[*See* 1 (j)]	The value shall be 500 mΩ (*Min*) for professional grade and 50 mΩ. (*Min*) for consumer grade.
	ii) Engagement and disengagement force	10.16.1	[*See* 1 (d)]	[*See* 1 (d)]

*Specification for general requirements and methods of tests for radio frequency connectors above 3 MHz (*first revision*).

(*Continued*)

TABLE 1 SCHEDULE OF TYPE TESTS — *Contd*

SL No.	TESTS	CLAUSE REFERENCE OF IS : 5054-1980*	CONDITION OF TEST	REQUIREMENTS
(1)	(2)	(3)	(4)	(5)
7.	*Sixth Group (2 Pairs)*			
	a) Centre contact retention force (for captivated contacts only)	10.18	—	—
	i) Visual examination	9.1	—	—
	b) Salt mist	16	For professional grade duration of exposure 48 hours. Humidity 95 to 98 percent. Test not applicable for consumer grade	—
	i) Visual examination	9.1	—	—
	ii) Engagement and disengagement force	10.16.1	[*See* 1 (d)]	[*See* 1 (d)]
	iii) Voltage proof	11.5	[*See* 1 (b)]	[*See* 1 (b)]
	iv) Insulation resistance	11.4	[*See* 1 (j)]	The value shall be greater than 1 000 mΩ.
	v) Contact resistance	11.1	Measurement shall be made on centre contact only	The value shall be less or equal to 5 mΩ
	vi) Sealing	10.13	[(*See* 1 (k)]	[*See* 1 (k)]
	c) Dust	18	Applicable for professional grade connectors only. Test not applicable for consumer grade	—
	i) Visual examination	9.1	—	—
	ii) Engagement and disengagement force	10.16	[*See* 1 (d)]	[*See* 1 (d)]
	iii) Contact resistance	11.1	Measurement shall be made on centre contact only	The value shall be less than or equal to 5 mΩ.

NOTE — 2 Samples shall be checked for materials/finish as specified and shall meet the requirements indicated.

---

*Specification for general requirements and methods of tests for radio frequency connectors above 3 MHz (*first revision*).

8.4.2 *Routine Tests* — The following tests shall be carried out in the order stated:

a) Visual examination [*see* **9.1** of IS : 5054-1980*]

b) Voltage proof [Duration 2 seconds, *see* **11.5** of IS : 5054-1980*]

8.4.3 *Acceptance Tests* — Two group of samples (Group A and Group B) shall be selected (*see* Appendix B of IS : 2612-1965†). Preferably at random from the lot that has passed routine tests stated in **8.4.2** above. Each group of connectors shall be subjected to the tests in order given in Table 2.

TABLE 2 SCHEDULE OF ACCEPTANCE TESTS

TESTS	CLAUSE REFERENCE OF IS : 5054-1980*	AQL (PERCENT DEFECTIVE)	INSPECTION LEVEL [IS : 10673-1983†]	*D/ND*‡
Group A				
Dimensions	9.2	1	II	*ND*
Mating characteristics	10.15			
Engagement and disengagement force	10.16.1			
Contact resistance	11.1			
Insulation resistance	11.4			
Sealing (for sealed type only)	10.13			
Group B				
Sub-group 1				
Mechanical endurance test (25% of total number of operations)	19	4	S3	*ND*
Electrical endurance test (168 hours)	20			
Sub-group 2				
Robustness of termination	10.8.3	4	S3	*D*
Bump	10.4			
Climatic sequence	12			

(*Continued*)

---

*Specification for general requirements and methods of tests for radio frequeney connectors above 3 MHz (*first revision*).

†Recommendation for type approval and sampling procedures for electronic components.

TABLE 2 SCHEDULE OF ACCEPTANCE TEST — *Contd*

TESTS	CLAUSE REFERENCE OF IS : 5054-1980*	AQL (PERCENT DEFECTIVE]	INSPECTION LEVEL IS : 10673-1983†]	*D/ND*‡
Sub-group 3§				
Resistance to solvents	23			
VSWR	11.14			
Salt mist	16			*D*
Sub-group 4				
Materials and finish				

a) 2 samples shall be checked for materials and finish irrespective of the lot size.

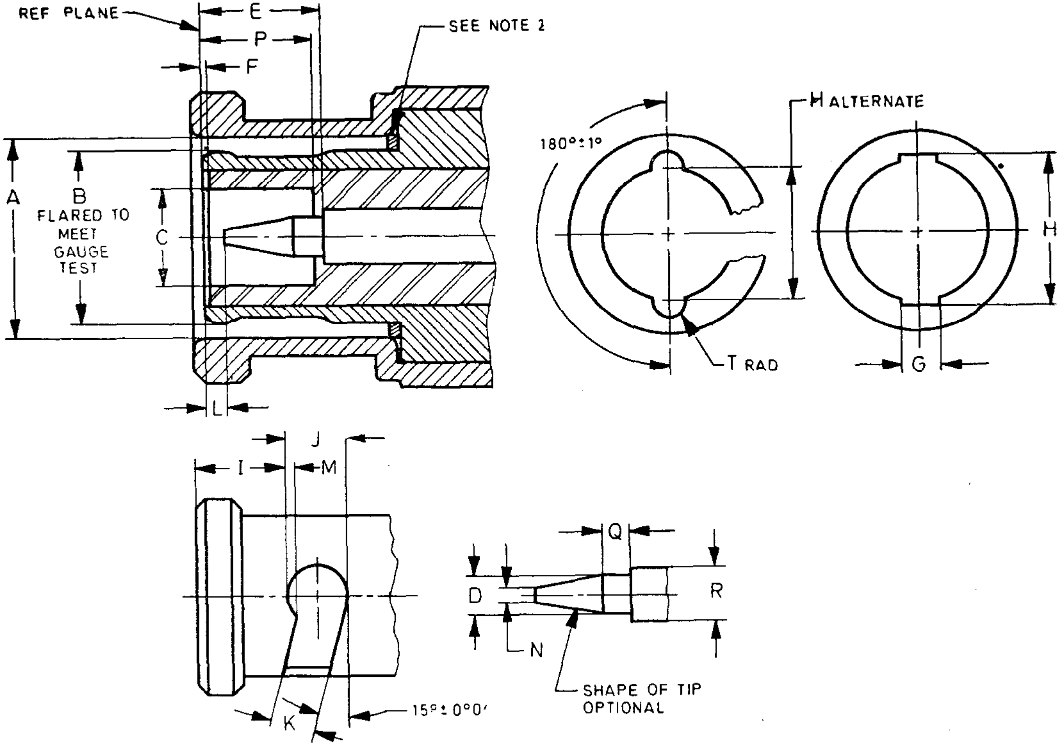
---

*Specification for general requirements and methods of tests for radio frequency connectors above 3 MHz (*first revision*).

†Sampling plans and procedures for inspection by attributes for electronic items.

‡*D*—destructive and *ND*—Non-destructive.

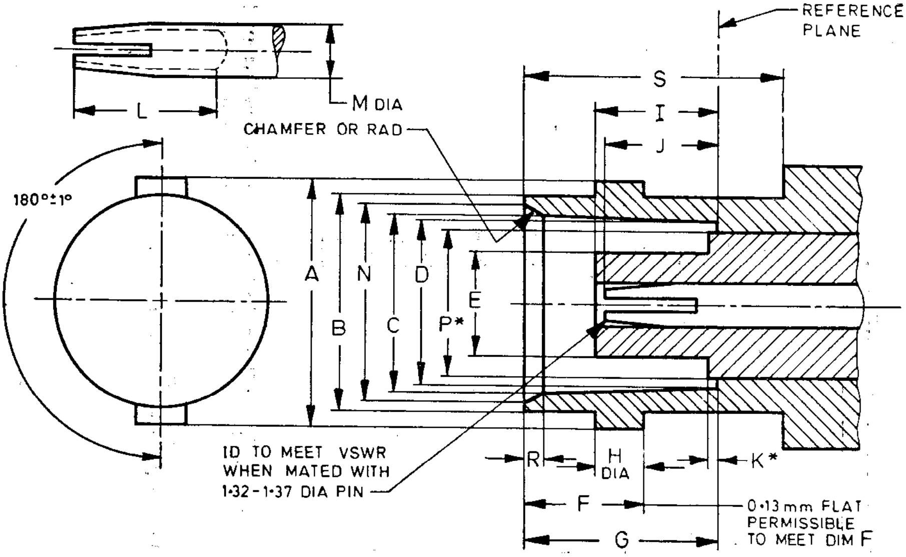
§Three samples shall be supplied to the test irrespective of lot size and one or more failures shall constitute rejection of lot.


REF PLANE
E
P
F
SEE NOTE 2
A
B
FLARED TO MEET GAUGE TEST
C
L
180°±1°
H ALTERNATE
H
T RAD
G
J
I
M
K
15°±0°0′
Q
D
N
R
SHAPE OF TIP OPTIONAL

LETTER	DIMENSIONS IN MILLIMETRES	
	Min	*Max*
A	9·78	9·91
B	Gauge Test	
C	4·83	—
D	1·32	1·37
E	5·33	5·84
F	0·15	—
G	2·31	2·46
H	11·76	12·01
*H**	10·01	10·16
I	4·57	4·67
J	3·15	—
K	2·31	2·46
L	0·08	—
M	0·46	0·56
N	—	0·64
P	5·28	5·79
Q	1·98	—
R	2·06	2·21
T	1·14	1·24

NOTE — In the mated condition the longitudinal force of the spring of the coupling mechanism shall exceed the pressure exerted by the sealing gasket by an amount necessary to insure butting of the outer contacts at the reference plane.

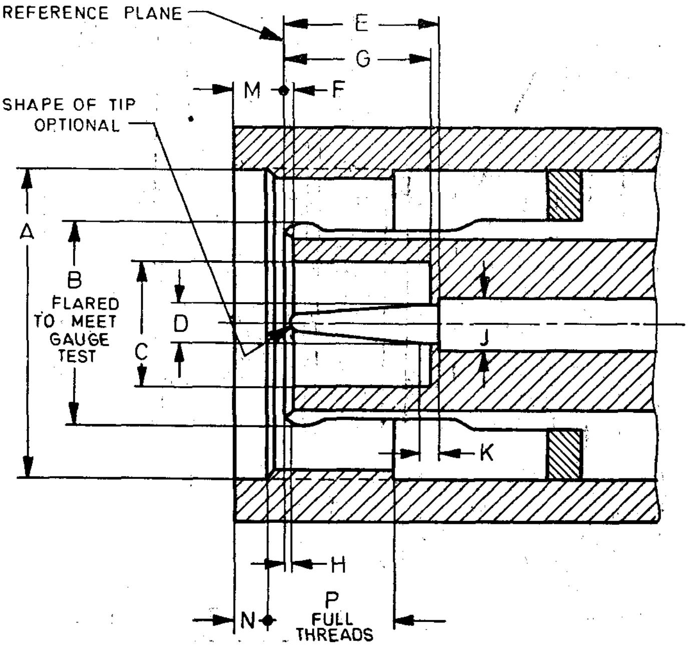
FIG. 1 MATING DIMENSIONS FOR MALE CONTACT-SERIES BNC


REFERENCE PLANE
S
I
J
M DIA
L
CHAMFER OR RAD
180°±1°
A
B
N
C
D
P*
E
ID TO MEET VSWR WHEN MATED WITH 1·32-1·37 DIA PIN
R
H DIA
K*
F
G
0·13 mm FLAT PERMISSIBLE TO MEET DIM F

Letter	Dimensions in Millimetres	
	Min	*Max*
A	10·97	11·07
B	9·60	9·70
C	8·31	8·46
D	8·10	8·15
E	—	4·72
F	5·18	5·28
G	8·31	8·51
H	1·91	2·06
I	4·78	5·28
J	4·72	5·23
*K**	—	0·15
L	4·95	—
M	2·06	2·21
N	8·79	9·04
*P**	—	6·50
R	0·38	0·76
S	10·52	—

NOTE — Concave depression 2·54 mm × 0·13 mm deep between studs permissible.

FIG. 2 MATING DIMENSIONS FOR FEMALE CONTACT-SERIES BNC

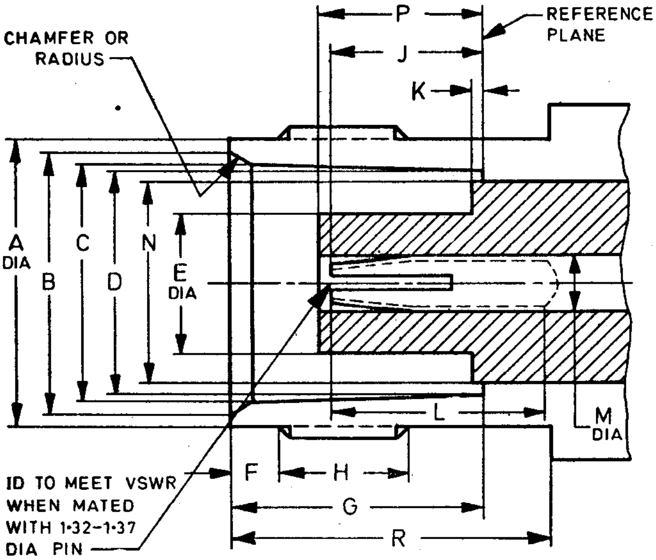


Letter	Dimensions in Millimetres	
	Min	*Max*
A	11·18	—
B	Gauge test	
C	4·83	—
D	1·32	1·37
E	5·33	5·84
F	0·15	—
G	5·28	5·79
H	0·08	1·02
J	2·06	2·21
K	1·98	—
M	—	1·98
N	1·60	—
P	3·96	—

Note 1 — Three holes 0·69 mm minimum diameter equally spaced for safety wiring. Location on coupling nut optional.

Note 2 — All undimensioned pictorial configurations are for reference purposes only.

Fig. 3 Mating Dimensions for Male Contact-Series TNC

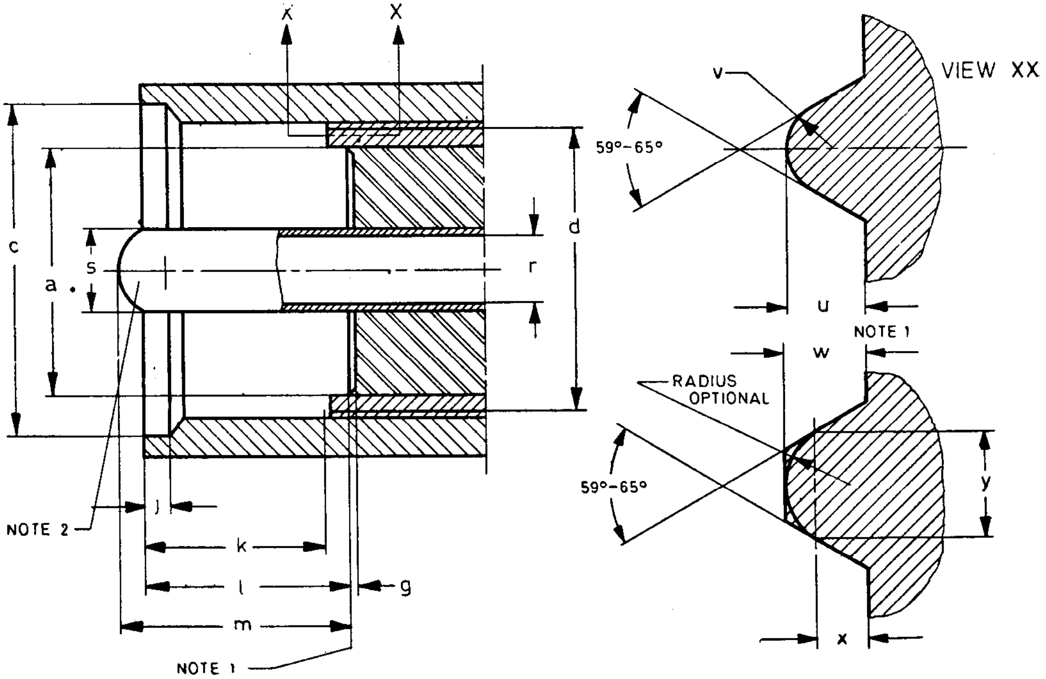


Letter	Dimensions in Millimetres	
	Min	*Max*
A	9·60	9·68
B	8·76	9·04
C	8·31	8·46
D	8·10	8·15
E	—	4.72
F	1·73	2·24
G	8·36	8·46
H	4·75	—
J	4·72	5·23
K	—	0·15
L	4·95	—
M	2·06	2·21
N	—	6·50
P	4·78	5·28
R	10·56	—
S	0·38	0·76

Note 1 — '*N*' dimension applies to that portion (if applicable) of the dielectric which protrudes beyond the metal should (or reference plane) by dimension '*K*'.

Note 2 — All undimensioned pictorial configurations are for reference purposes only.

Fig. 4 Mating Dimensions for Female Contact-Series TNC



Ref	Dimensions				Remarks	Note
	Min mm	*Max* mm	*Min* in	*Max* in		
a	11·56	12·22	0·455	0·481	Diameter	4
c	16·00		0·630		Diameter	
d	13·92		0·548		Diameter	
g	0·00		0·000		Diameter	
j	1·19	4·27	0·047	0·168		
k	8·76		0·345			
l		9·91		0·390		
m		11·10		0·437		
r		3·35		0·132	Diameter	
s	3·912	4·013	0·154	0·158	Diameter	
u		0·89		0·035		3/5
v	0·38	0·64	0·015	0·025	Radius	3/5
w		0·89		0·035		5
x	0·6	0·75	0·023 6	0·029 5		5
y	1·3	1·55	0·051 2	0·061 0		5

Note 1 — Mechanical and electrical reference plane.

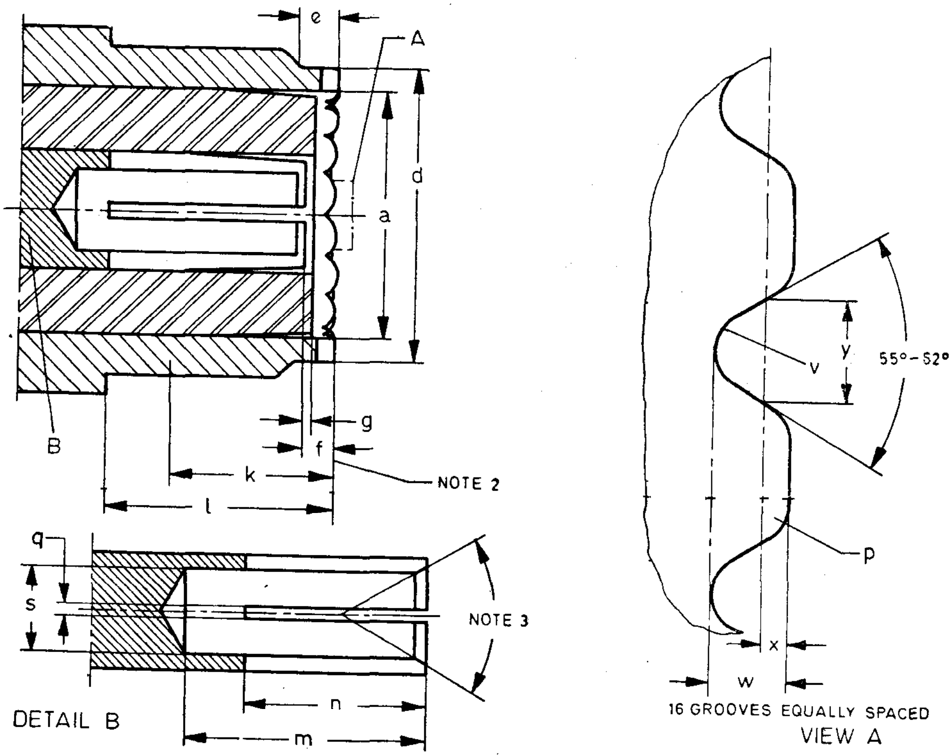
Note 2 — Form of inner conductor tip is optional.

Note 3 — Shape of front end of the lug is optional.

Note 4 — Entry chamfer upto 12·57 mm diameter permissible on this dimension.

Note 5 — Figures (a) and (b) define alternative forms of lugs.

Fig. 5 Mating Dimensions for Male Contact-Series UHF



Ref	Dimensions				Remarks	Note
	Min mm	Max mm	Min in	Max in		
a	11·56	12·22	0·455	0·481	Diameter	
d	14·00	14·25	0·551	0·561	Diameter	
e	1·19	1·96	0·047	0·077		
f	1·02		0·040			
g	0·03		0·001			
k	7·87		0·310			
l	11·10		0·437			
m	11·76		0·463			
n						
p		0·64		0·025	Radius	1
q						
s	4·039	—	0·159		Diameter	1
v	0	—	0	—	Radius	4
w	0·89		0·035			
x	0·41	0·6	0·016	0·024		
y	1·04	1·3	0·041	0·051		

Note 1 — Method of slotting and number of slots optional.

Note 2 — Mechanical and electrical reference plane.

Note 3 — Chamfer to achieve insertion of pin contact.

Note 4 — Position of centre of radius *p* is not specified. It depends on the other dimensional conditions..

Fig. 6 Mating Dimensions for Female Contact-Series UHF

INDIAN STANDARDS

ON

CONNECTORS FOR ELECTRONIC EQUIPMENT

IS:

1885 (Part XL)-1974	Electrotechnical Vocabulary: Part XL Connectors
2926-1964	Dimensions of connectors for radio batteries
3720-1963	Dimensions of polarized plugs for hearing aid
3826	Specification for connectors for frequencies below 3 MHz:
(Part I)-1966	General requirements and tests
(Part II)-1970	Battery connectors for electronic equipment
9647-1980	Specification for general requirements and methods of tests for low frequency connectors below 3 MHz including DC
5054-1980	Specification for general requirements and methods of tests for radio frequency connectors above 3 MHz
9891	Specification for edge connectors for printed wiring board having a contact pitch of 2·54 mm:
(Part I)-1981	Test schedule and requirements
(Part II)-1981	Non polarised plug types XXXX IS-01-11/25/33-W-A-0·75
(Part III)-1981	Non polarised plug types XXXX IS-02-11/25/33-I-A-0·75
(Part IV)-1981	Non polarised socket types XXXX IS-03-11/25/33-W/I-A/B-0.75
10482	Specification for connectors for printed wiring board:
(Part 1)-1983	Test schedule and requirements
(Part 2)-1983	Male adapter, contact spacing 3·962 mm Category C Types XXXX IS-01-6/10/12/15/16/18/22-a/b-2-A-5/1·27 or 2·54/0·4
(Part 3)-1983	Socket, card insertion, contact spacing 3·962 mm Category A Types XXXX IS-02-6/10/12/15/16/18/22-a/b-2-A/B/C-5/1·27 or 2·54/0·4

INDIAN STANDARDS INSTITUTION

Manak Bhavan, 9 Bahadur Shah Zafar Marg, NEW DELHI 110002

Telephones : 26 60 21, 27 01 31

Telegrams : Manaksanstha

Regional Offices :

			Telephone
Western	: Novelty Chambers, Grant Road	BOMBAY 400007	89 65 28
Eastern	: 5 Chowringhee Approach	CALCUTTA 700072	27 50 90
Southern	: C. I. T. Campus	MADRAS 600113	41 24 49
Northern	: B69, Phase VII	S. A. S. NAGAR (MOHALI) 160051	8 78 26

Branch Offices :

'Pushpak', Nurmohamed Shaikh Marg, Khanpur	AHMADABAD 380001	2 03 91
'F' Block Unity Bldg, Narasimharaja Square	BANGALORE 560002	22 48 05
Gangotri Complex, Bhadbhada Road, T. T. Nagar	BHOPAL 462003	6 27 16
22E Kalpana Area	BHUBANESHWAR 751014	5 36 27
5-8-56C L. N. Gupta Marg	HYDERABAD 500001	22 10 83
R14 Yudhister Marg, C Scheme	JAIPUR 302005	6 98 32
117/418 B Sarvodaya Nagar	KANPUR 208005	4 72 92
Patliputra Industrial Estate	PATNA 800013	6 28 08
Hantex Bldg (2nd Floor), Rly Station Road	TRIVANDRUM 695001	32 21

Printed at New India Printing Press, Khurja, India